

REMARKS

In view of the amendments presented above and the following discussion, the Applicants submit that none of the claims now pending in the application is obvious under the provisions of 35 USC § 103(a). Thus, the Applicants believe that all of these claims are now in allowable form.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, the Examiner should telephone Ms. Janet M. Skafar at (650) 988-0655 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Objections to the Specification

In response to the Examiner's objection to the specification because it contains an embedded hyperlink and/or other form of browser-executable code on page 12, line 11, the Applicants have removed the reference to the URL.

Objections to the Claims

The Examiner objected to claim 36 because of the following informalities: the letter "t" at line 9 of the claim is unclear. In response, the Applicants, per the Examiner's suggestion, replaced "t" with "thumbnail."

Rejections under 35 USC § 103(a)

The Examiner has rejected each of independent claims 1, 34 and 47, and dependent claims 2-3, 5-9, 11, 12, 14, 16-22, 24 and 33, 35-40, 42, 44 and 46; and 48-51, 53, 54, 56 and 58-60, respectively, as being obvious under the provisions of 35 USC § 103(a) by the teachings in the Robertson et al patent (United States Patent 6,166,738, issued Dec. 26, 2000 to George G. Robertson et al) in view of the Joskowicz et al patent (United States Patent 5,669,006, issued to Leo Joskowicz et al). This rejection is respectfully traversed.

Generally speaking, the Robertson et al and the Joskowicz et al patents are directed to the same subject matter as the present Applicants; namely, a graphical user interface. However, as the Examiner will soon see, the teachings of the Robertson et al and the Joskowicz et al patents, and those of the present invention sharply diverge.

The Robertson et al patent teaches a "graphical user interface in which object thumbnails are rendered on a simulated three-dimensional surface which (i) exploits spatial memory and (ii) allows more objects to be rendered on a given screen. The objects may be moved, continuously, on the surface with a two-dimensional input device." (The Robertson et al patent, Abstract). The user interface can provide intelligent help to the user. For example, the Robertson et al interface may cluster, by rendering a visual boundary, object thumbnails which are arranged, by the user, relatively close to one another. A matching (e.g., correlation or similarity) algorithm may be employed to

determine whether certain objects are related. Alternatively, objects may be related by an explicit selection or designation by a user or based on a property (e.g., age, storage location, etc.) of an object. (The Robertson et al patent, col. 7, line 12 et seq.). "If object properties are used to relate objects, the objects may be sorted or filtered based on such properties." (The Robertson et al patent, col. 20, line et seq.). "Other parameters are used when rendering the display. These parameters are either fixed or may have default values which may be changed by the user. For example, a texture of the plane (e.g., a "wallpaper" type) may be fixed, or may be selected or changed by the user and stored in field 328. The incline angle of the plane may be fixed, or may be selected or changed by the user and stored in field 336. The type of layout (such as gridded or continuous with push, as will be described later) may be fixed, or may be changed or selected by the user and stored in field 338. If the layout is a gridded layout, a grid map, which defines the resolution of the grid, may be fixed, or may be changed or selected by the user and stored in field 336. Finally, if the invention is to include an implicit query function, (as will be described later), a "match threshold" value may be fixed, or may be selected or changed by a user and stored in field 340." (The Robertson et al patent, col. 15, lines 8-23).

In the Joskowicz et al patent, a "computer implemented method reduces the complexities of obtaining a spatial design in a multimedia presentation. The method is an interactive process which assists an author in readily arriving at a suitable spatial design in the multimedia

presentation. A set of objects that appear to the computer display screen simultaneously is termed a clique. The spatial design for a multimedia clique is defined in terms of three dimensions, two dimensions defining the plane of the computer display screen and the third dimension defining the depth of overlapping objects. The locations of the associated episodes and their respective depths on the screen are found. This process involves resolving space requirements between the several episodes in the clique according to a defined set of constraints. Assuming that a resolution can be reached which provides a consistent layout, the layout is displayed. The user is then given the opportunity to change the predefined set of constraints, resulting in the display of the layout with the changed set of constraints." (The Joskowicz et al patent, Abstract) The Joskowicz et al patent further teaches that conflicts among the Z-order constraints may be resolved according to their priorities: e.g., if a button and a text episode overlap, the button should still be fully visible. (The Joskowicz et al patent, col. 4, lines 32-34).

The Applicants take a markedly different approach to providing a three-dimensional graphical user interface. Unlike in the Robertson et al and the Joskowicz et al patents, the present inventive methodology determines the depth as a function of at least one parameter of the object associated with the thumbnail.

Neither the Robertson et al patent nor the Joskowicz et al patent, alone or in combination, teach all the limitations of independent claim 1. Although the Robertson et al patent teaches displaying thumbnails in

three dimensions and indicating clusters of thumbnails, the Robertson et al patent does not teach determining the depth of a thumbnail as a function of at least one parameter of the object associated with the thumbnail. Although the Robertson et al patent discloses parameters to be used when rendering the display, such as wallpaper type, incline of a plane, gridded or continuous with push layouts, and a match threshold, the Robertson et al patent does not teach that the depth is a function of at least one parameter.

Although the Joskowicz et al patent teaches a Z-ordering based on a defined set of constraints, such as the type of an object, the Joskowicz et al patent does not teach determining the depth of a thumbnail as a function of at least one parameter of the object associated with the thumbnail.

Furthermore, the Joskowicz et al patent teaches displaying the objects themselves. (The Joskowicz et al patent, Fig. 2). In contrast, the present invention displays thumbnails representing associated objects.

Moreover, the teachings of the Joskowicz et al patent and those of the present invention provide different results. In the Joskowicz et al patent "[n]ot all objects are visible. For example, an audio episode or a time delay has zero screen real estate." (The Joskowicz et al patent, col. 3, line 23 et seq.) Therefore, in the Joskowicz et al patent, an audio object would not be visible. Unlike in the Joskowicz et al patent, in the present invention, a thumbnail representing an audio object or file would be visible in the three dimensional environment; and the depth

of that thumbnail is a function of at least one parameter of the audio object.

2 Therefore combining the teachings of the Robertson et al patent and the Joscowicz et al patent would not result in determining the depth as a function of at least one parameter of the object associated with the thumbnail.

Thus, the present invention is not shown, disclosed or suggested, whether explicitly or even implicitly, by the Robertson et al patent and the Joscowicz et al patent, alone or in combination.

Independent claim 1, as amended, contains suitable limitations directed at the distinguishing aspects of the present invention. This claim, with these limitations shown in a bolded typeface, recites as follows:

"A man-machine interface method for permitting a user to act on thumbnails, each thumbnail representing an associated object containing information, for use with a machine having a video display device and a user input device, the man-machine interface method comprising:

- a) generating a three-dimensional environment, having a depth, to be rendered on the video display device;
- b) determining a two-dimensional location and a depth of each of the thumbnails in the three-dimensional environment, **wherein, for each of the thumbnails, the depth is a function of at least one parameter of the object associated with the thumbnail;** and
- c) generating the thumbnails within the three-dimensional environment, at the determined two-dimensional locations and

depths, to be rendered on the video display device.." [emphasis added].

As such, since independent claim 34 contains the similar distinguishing limitations of claim 1, the Applicants submit that none of their independent claims are obvious in view of the teachings in the cited art. Hence, each of these independent claims is patentable under the provisions of 35 USC § 103(a).

Moreover, each of claims 2-3, 6-9, 11, 12, 14, 16-22, 24, 33, 47-51, 53-54, 56 and 58-60; and 35-40, 42, 44, and 46, depends, either directly or indirectly, from independent claims 1 and 34, respectively, and recites further distinguishing aspects of the present invention. As such, each of these dependent claims is also not obvious over the teachings in the cited art for the same exact reasons set forth above. Hence, each of these dependent claims is also patentable under the provisions of 35 USC § 103(a).

Claim 4

The Examiner has rejected claim 4 as being obvious under the provisions of 35 USC § 103(a) by the teachings in the Robertson et al in view of the Joskowicz et al patent, and further in view of Baldwin (United States Patent 5,701,444, issued to December 23, 1997 to David Robert Baldwin). Since claim 4 depends from claim 1, claim 4 is non-obvious for the same reasons as claim 1, discussed above.

New Claims 61, 62 and 63

New independent claims 61 and 62 are similar to independent claims 1 and 34, respectively, except that the term "parameter" has been changed to "property." New independent claim 63 is machine readable medium containing data and machine executable instructions which, when executed by a machine, performs the method of claim 1.

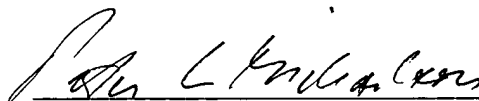
Conclusion

Thus, the Applicants submit that none of the claims, presently in the application, is obvious under the provisions of 35 USC § 103(a).

Consequently, the Applicants believe that all these claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

Respectfully submitted,

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